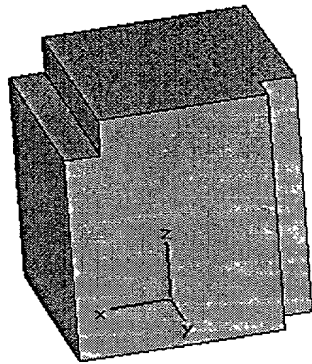
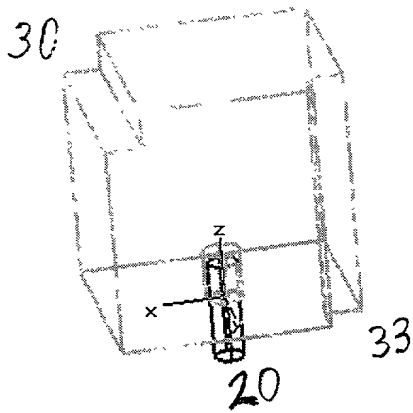


TOP SECRET 4401



10

(a)



10

(b)

Figure 1.

TOP SECRET 4401

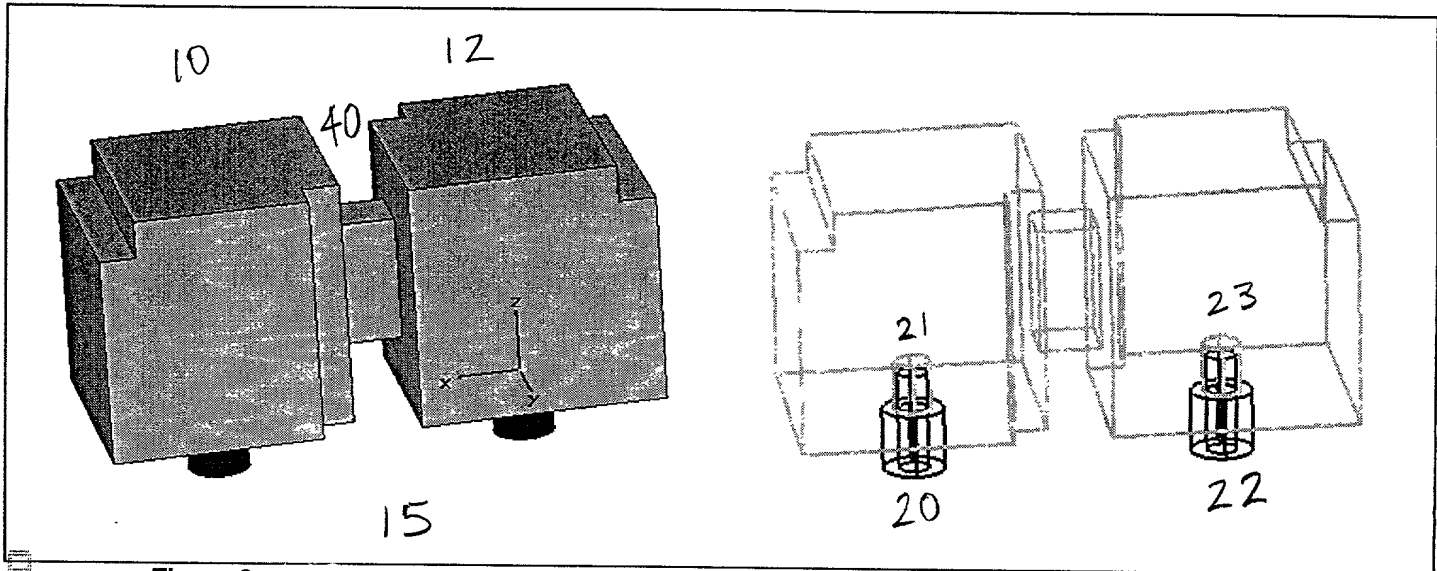
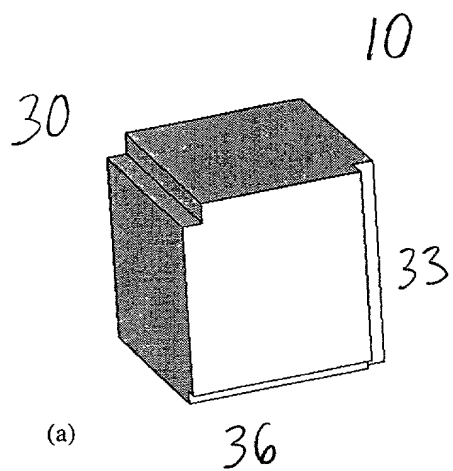
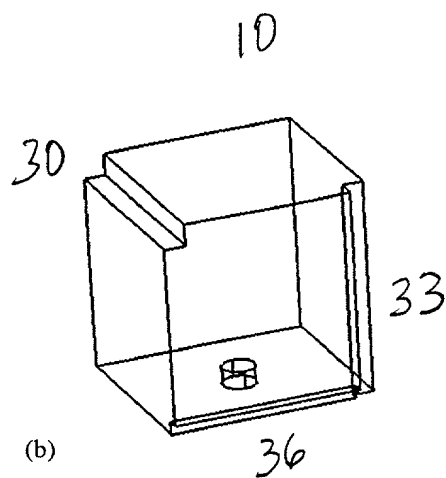


Figure 2.

FIG. 2



(a)



(b)

Figure 3.

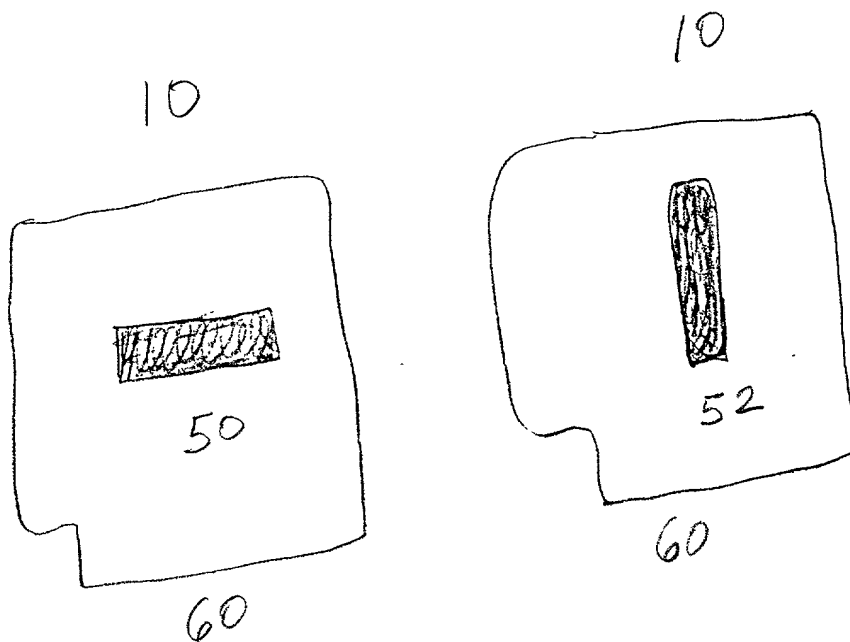
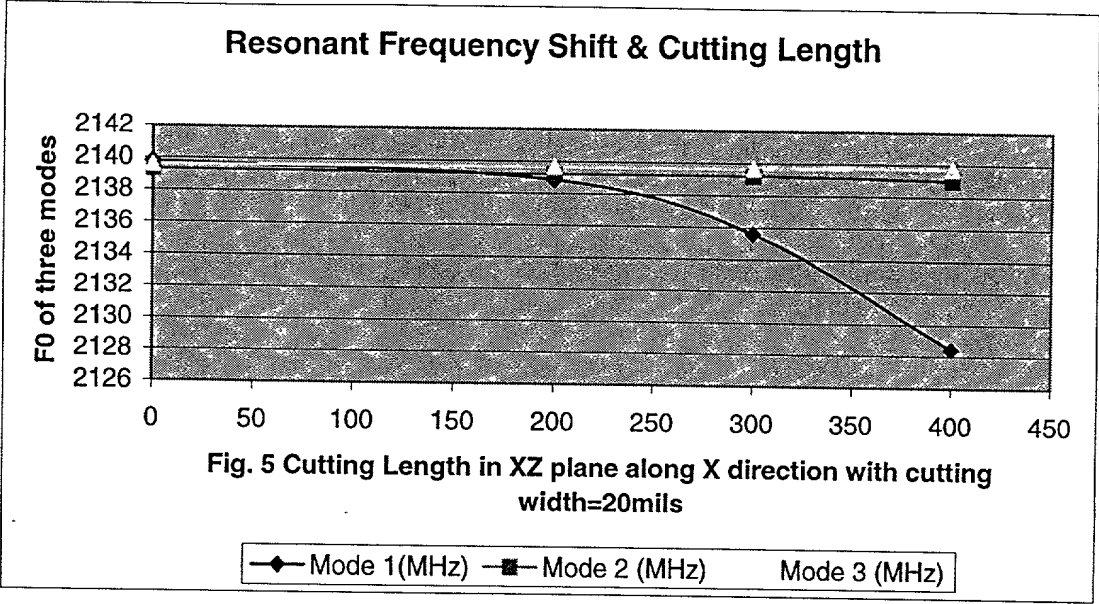


Figure 4



Resonant Frequency Shift & Cutting Length

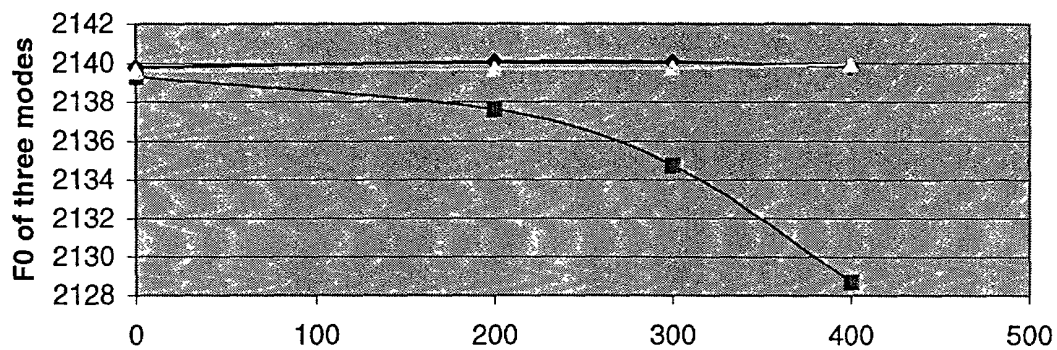
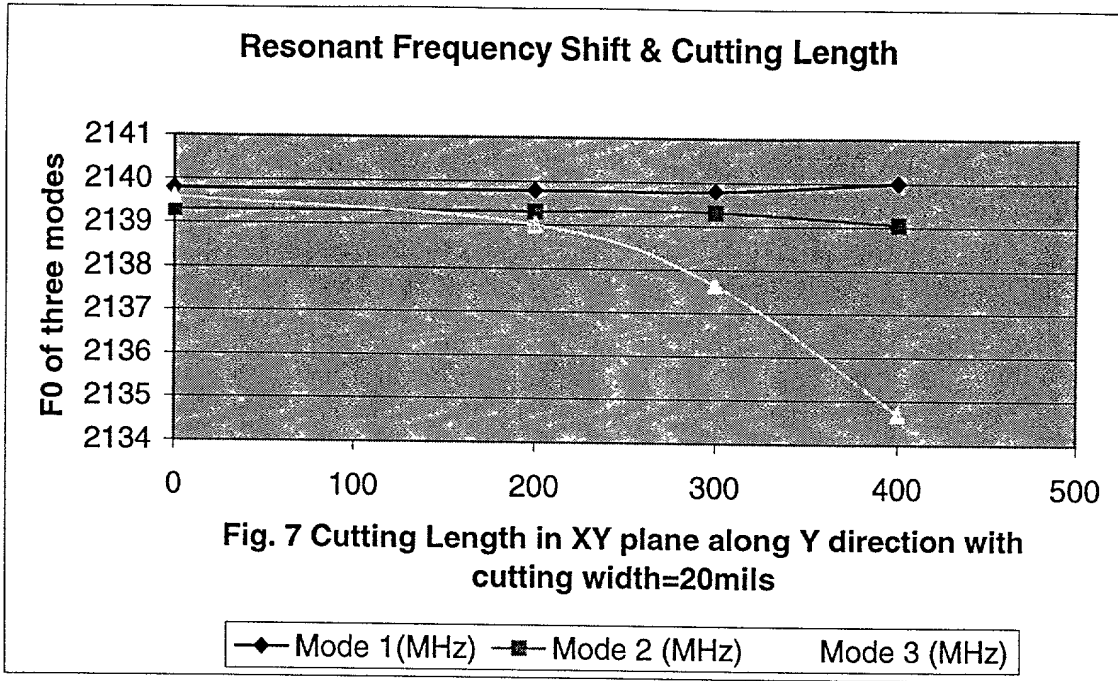


Fig. 6 Cutting Length in XY plane along X direction with cutting width=20mils

◆ Mode 1(MHz)    ■ Mode 2 (MHz)    ◇ Mode 3 (MHz)

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Parameter	Unit	Value
Initial concentration	mol/L	0.01
Initial pH		7.0
Temperature	°C	25
Time	min	0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600, 620, 640, 660, 680, 700, 720, 740, 760, 780, 800, 820, 840, 860, 880, 900, 920, 940, 960, 980, 1000
Concentration	mol/L	0.01, 0.005, 0.0025, 0.00125, 0.000625, 0.0003125, 0.00015625, 0.000078125, 0.0000390625, 0.00001953125, 0.000009765625, 0.0000048828125, 0.00000244140625, 0.000001220703125, 0.0000006103515625, 0.00000030517578125, 0.000000152587890625, 0.0000000762939453125, 0.00000003814697265625, 0.000000019073486328125, 0.0000000095367431640625, 0.00000000476837158203125, 0.000000002384185791015625, 0.0000000011920928955078125, 0.00000000059604644775390625, 0.000000000298023223876953125, 0.0000000001490116119384765625, 0.00000000007450580596923828125, 0.000000000037252902984619140625, 0.0000000000186264514923095703125, 0.00000000000931322574615478515625, 0.000000000004656612873077392578125, 0.0000000000023283064365386962890625, 0.00000000000116415321826934814453125, 0.000000000000582076609134674072265625, 0.0000000000002910383045673370361328125, 0.00000000000014551915228366851806640625, 0.000000000000072759576141834259033203125, 0.0000000000000363797880709171295166015625, 0.00000000000001818989403545856475830078125, 0.000000000000009094947017729282379150390625, 0.0000000000000045474735088646411895751953125, 0.00000000000000227373675443232059478759765625, 0.000000000000001136868377216160297393798828125, 0.0000000000000005684341886080801486968994140625, 0.00000000000000028421709430404007434844970703125, 0.000000000000000142108547152020037174224853515625, 0.0000000000000000710542735760100185871124267578125, 0.00000000000000003552713678800500929355621337890625, 0.000000000000000017763568394002504646778106689453125, 0.0000000000000000088817841970012523233890533447265625, 0.00000000000000000444089209850062616169452667236328125, 0.000000000000000002220446049250313080847263336181640625, 0.0000000000000000011102230246251565404236316680908203125, 0.00000000000000000055511151231257827021181583404541015625, 0.000000000000000000277555756156289135105907917022705078125, 0.0000000000000000001387778780781445675529539585113525390625, 0.00000000000000000006938893903907228377647697925567626953125, 0.000000000000000000034694469519536141888238489627838134765625, 0.0000000000000000000173472347597680709441192448139190673828125, 0.00000000000000000000867361737988403547205962240695953369140625, 0.000000000000000000004336808689942017736029811203479766845703125, 0.0000000000000000000021684043449710088680149056017398834228515625, 0.00000000000000000000108420217248550443400745280086994171142578125, 0.000000000000000000000542101086242752217003726400434970855712890625, 0.0000000000000000000002710505431213761085018632002174854278564453125, 0.00000000000000000000013552527156068805425093160010874271392822265625, 0.000000000000000000000067762635780344027125465800054371356964111328125, 0.0000000000000000000000338813178901720135627329000271856784820556640625, 0.00000000000000000000001694065894508600678136645001359283924102783203125, 0.000000000000000000000008470329472543300339068225006796419620513916015625, 0.0000000000000000000000042351647362716501695341125033982098102569580078125, 0.00000000000000000000000211758236813582508476705625169910490512847900390625, 0.000000000000000000000001058791184067912542383528125849552452564239501953125, 0.0000000000000000000000005293955920339562711917640629247762262821197509765625, 0.00000000000000000000000026469779601697813559588203146238811314105987548828125, 0.000000000000000000000000132348898008489067797941015731194056570529937744140625, 0.0000000000000000000000000661744490042445338989705078655970282852649688720703125, 0.00000000000000000000000003308722450212226694948525393279851414263248443603515625, 0.000000000000000000000000016543612251061133474742626966399257071316242218017578125, 0.00

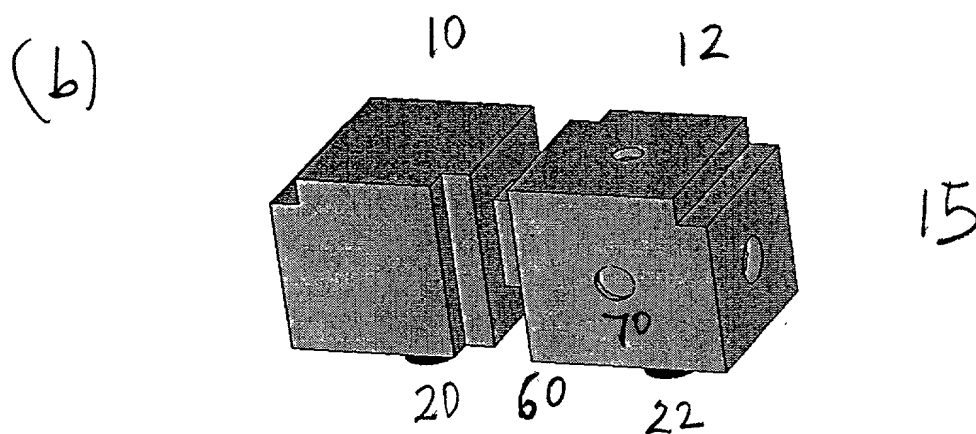
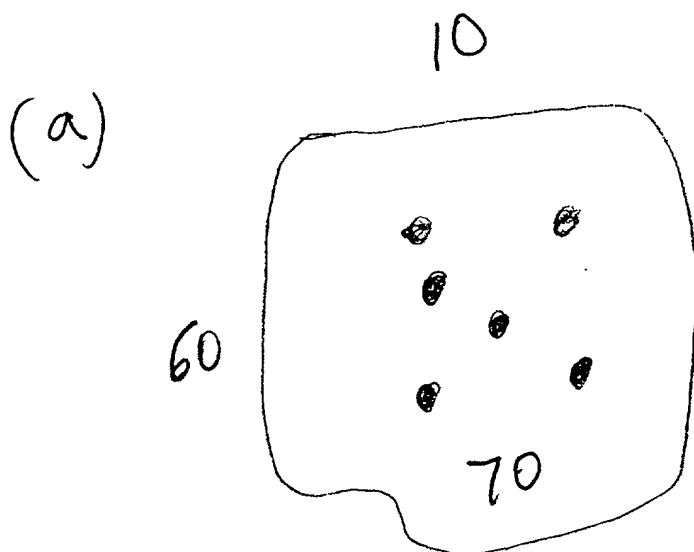
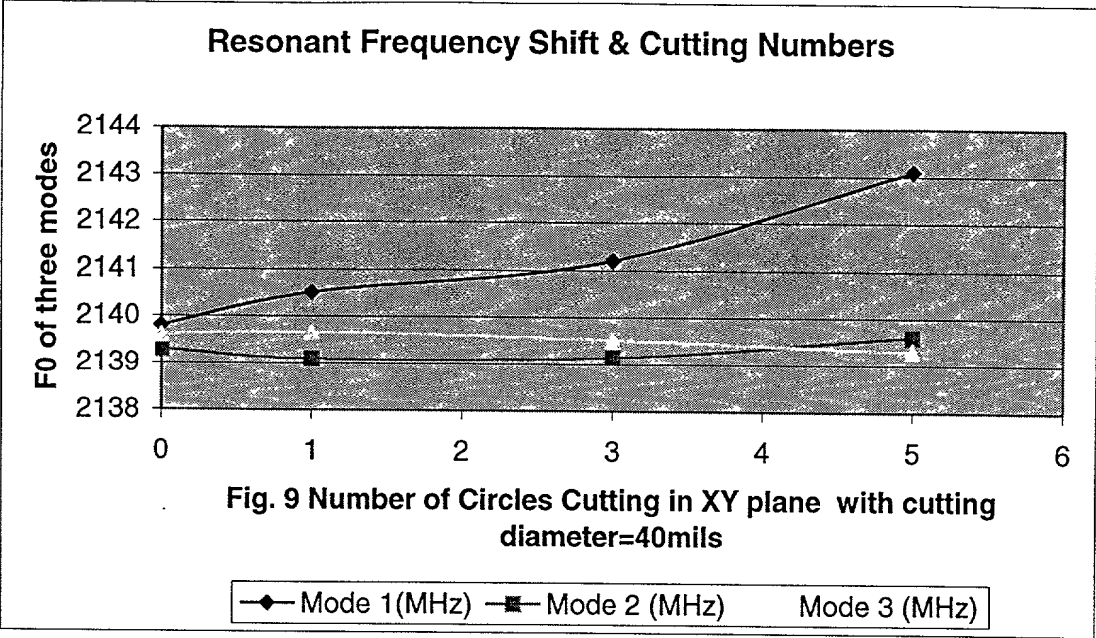
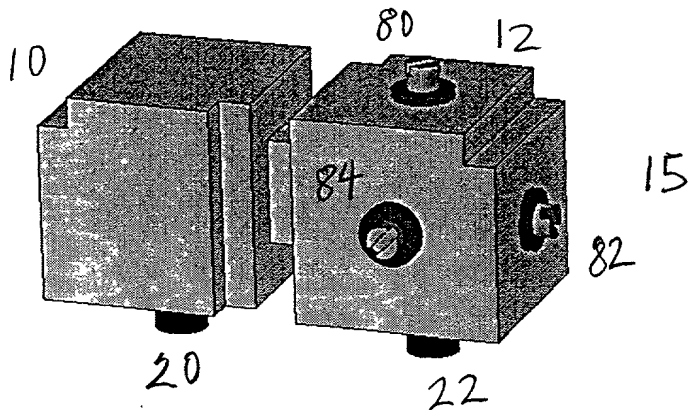


Figure 8





(a)



(b)

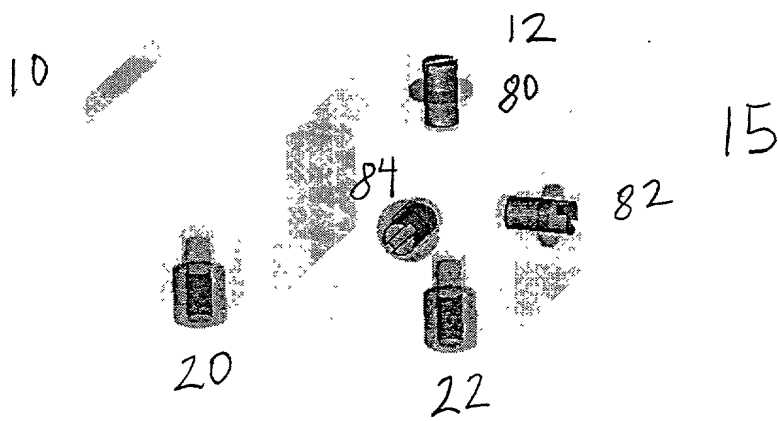


Figure 10.



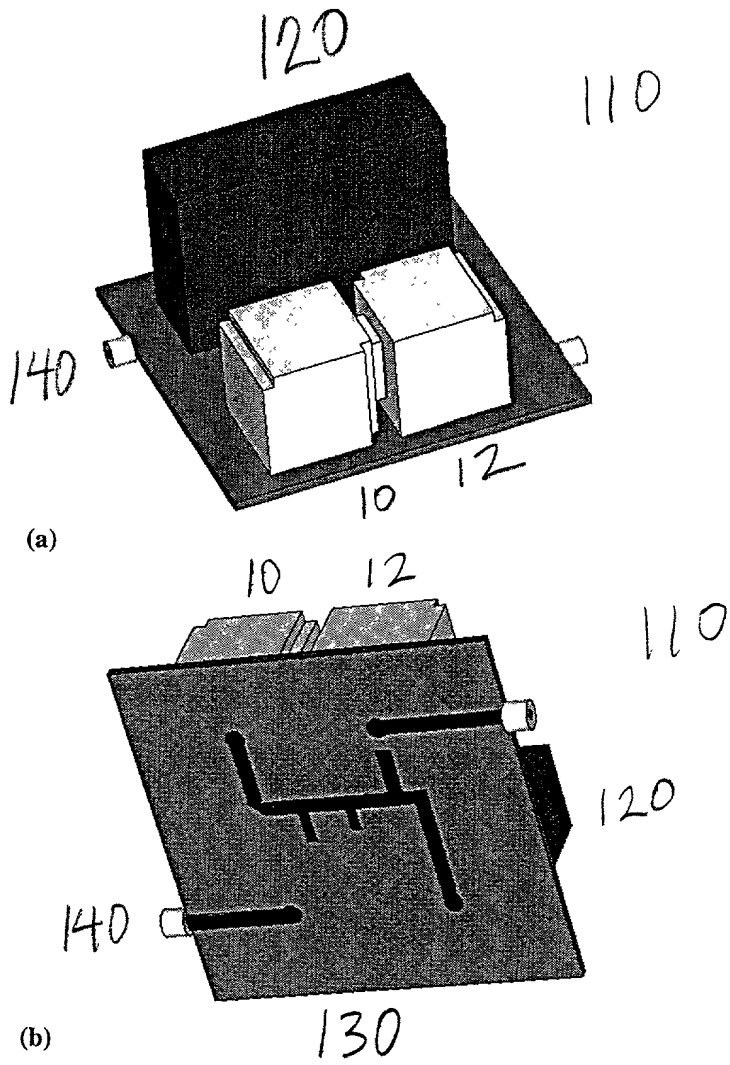


Figure 12.

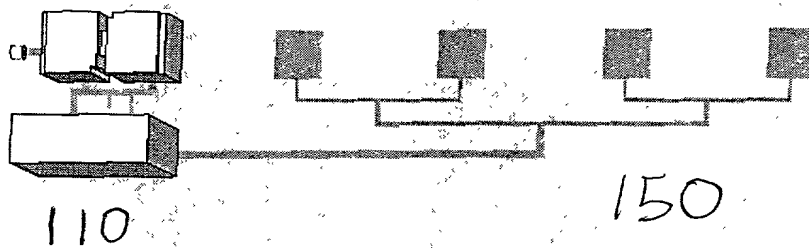


Figure 13.

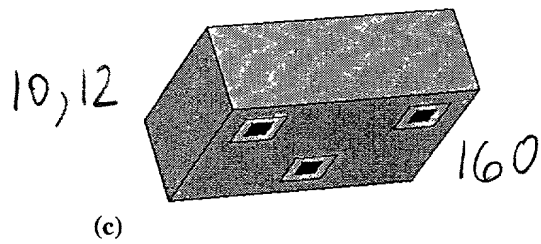
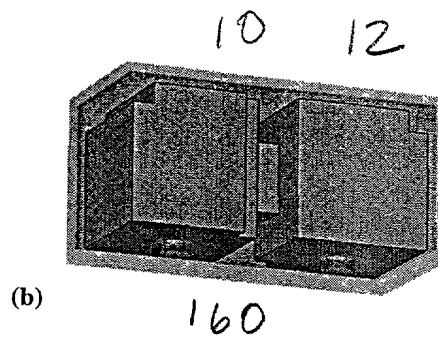
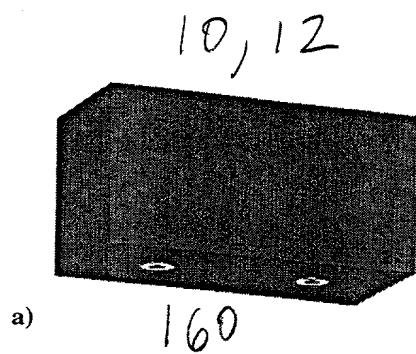


Figure 14.

104TFT-252/8550

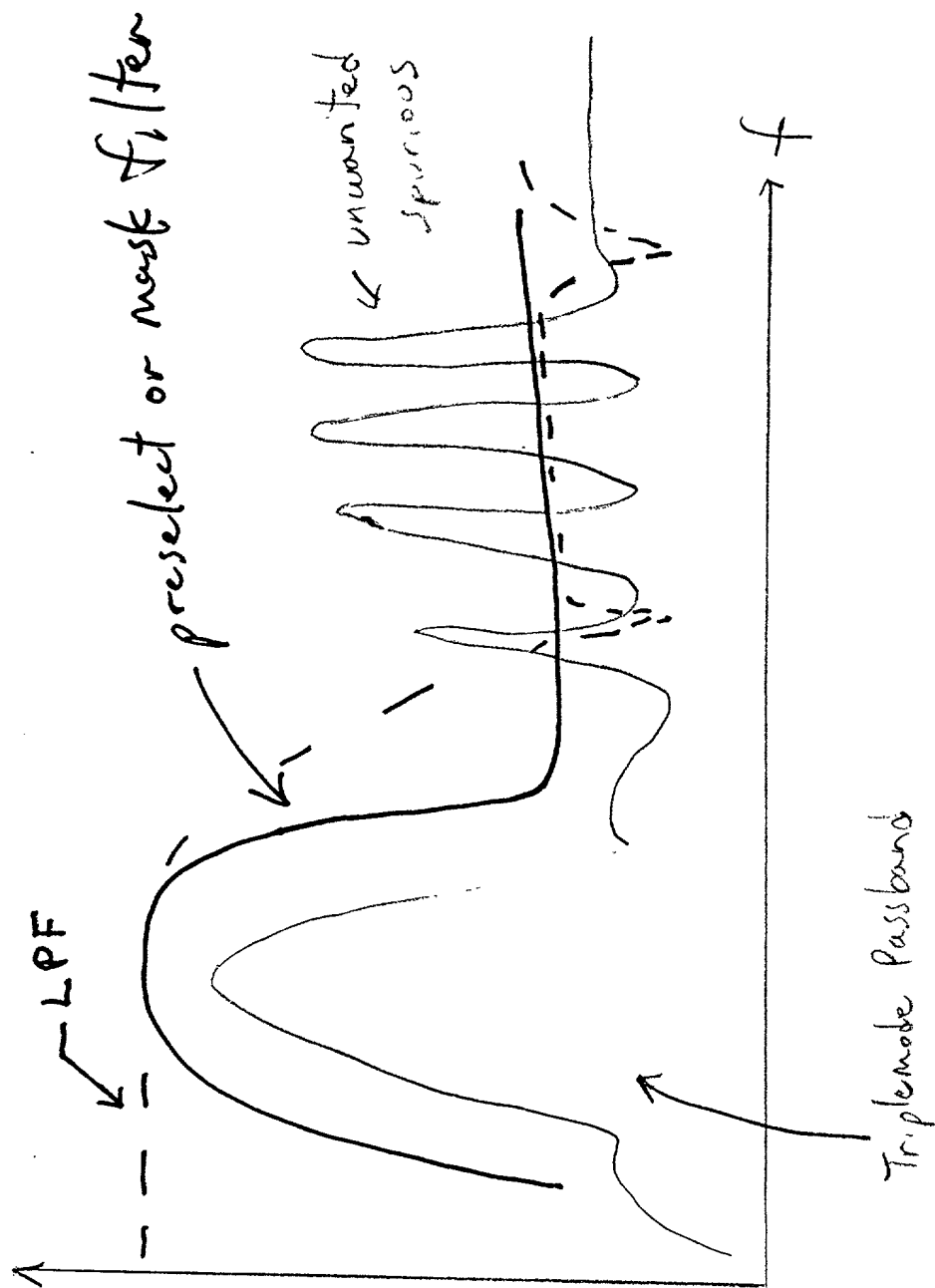
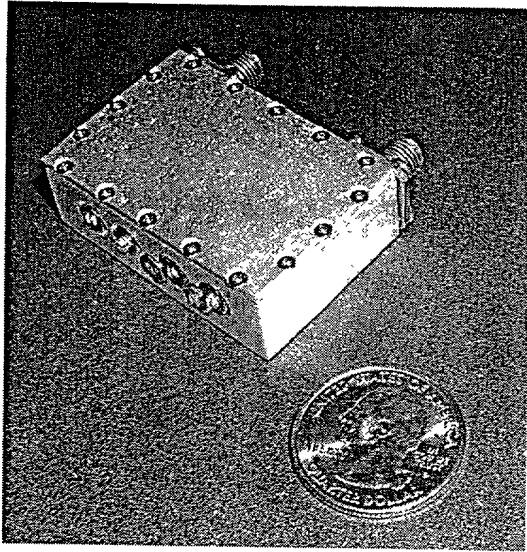
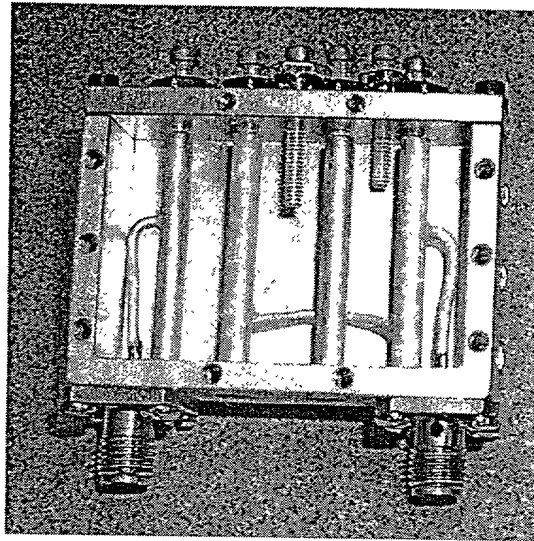
$$>$$


Figure 15



(a)



(b)

Figure 16.